

Abstract of the Disclosure

A method and apparatus for reducing false contour in a digital display apparatus including a plasma display panel (PDP) using pulse number modulation are provided. The apparatus includes a data converter, which processes an image signal such that a gray level of the image signal exists within a predetermined range; an error diffuser, which diffuses an error between a gray level of a current pixel in a current frame of the image signal and a gray level of the current pixel in the current frame after being subjected to gray-level change, to pixels adjacent to the current pixel in the current frame; a gray-level changing unit, which calculates a difference in a gray level between each pixel in the current frame of the image signal and a pixel corresponding to the current frame pixel in a previous frame of the image signal, and changes the gray level of the current frame pixel based on the gray level difference such that transition in an emission pattern of higher weighted subfields among subfields, which illuminate according to the gray level of the current frame pixel, between the current frame pixel and the previous frame pixel is minimized; and a subfield converter, which converts a subfield according to a gray level output from the gray-level changing unit.